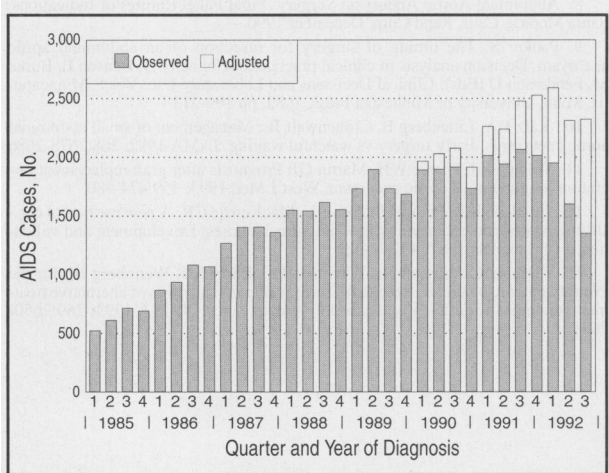


# Correspondence

## Timely Reporting of AIDS Cases

TO THE EDITOR: Two recent articles described advances in the clinical diagnosis and treatment of patients with human immunodeficiency virus (HIV) disease.<sup>1,2</sup> Another important but less obvious role physicians play in combatting this epidemic is the timely reporting of confidential case information on the acquired immunodeficiency syndrome (AIDS) to local health departments.<sup>3</sup> Substantial delays often exist from AIDS diagnosis until case information is received and processed by local and state health departments. This time lag creates an artificial plateau or decline in the epidemic curve, which may lead to false conclusions about AIDS trends.

We recently developed statistical estimates of the distribution of reporting delays in California and identified variations in this distribution by region and other case characteristics.<sup>4</sup> Statewide, 60% of cases are reported within six months of the AIDS diagnosis, and 80% are reported within a year after diagnosis. Delays in reporting AIDS cases vary by route of HIV exposure, with the longest delays in reporting occurring among recipients of blood or blood products. Overall, reports on younger persons with AIDS have much longer delays than reports for those in older age groups.



**Figure 1.**—Diagnosed cases of the acquired immunodeficiency syndrome (AIDS) per quarter in California, observed and adjusted for reporting delays, are shown. Cases meeting the expanded case definition effective January 1993 are not included (from the California Department of Health Services, Office of AIDS).

Based on the estimated reporting delay distributions, statistical adjustments can be made to more accurately reflect trends in the occurrence of AIDS (Figure 1). These adjusted trends provide more accurate information to assist physicians in guiding efforts to prevent the further transmission of HIV.<sup>5</sup> The adjusted incidence also provides more effective health planning and policy assessments through more accurate estimates of the prevalence of HIV infection and the future incidence of AIDS.

Data on AIDS occurrence are also used in the allocation of resources for HIV prevention and for the care and treatment of persons infected with HIV. For example, federal funding to California under Title I and Title II of the Ryan White CARE Act depends in part on morbidity statistics, as does the state's allocation of these funds to local consortia for care and treatment services for those infected with HIV. Because observed, not adjusted, AIDS morbidity statistics are used in these funding decisions, timely and complete reporting of AIDS cases is needed to ensure an equitable allocation of resources.

The need for improved timeliness of case reporting is heightened by the recent expansion in the AIDS case definition effective January 1, 1993.<sup>6</sup> This may double the number of AIDS cases reported this year.

Physicians, nurses, and other health care professionals are encouraged to work closely with local health departments to improve the timeliness and completeness of reporting cases of AIDS.

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## Abnormal Mammogram After Steering Wheel Injury

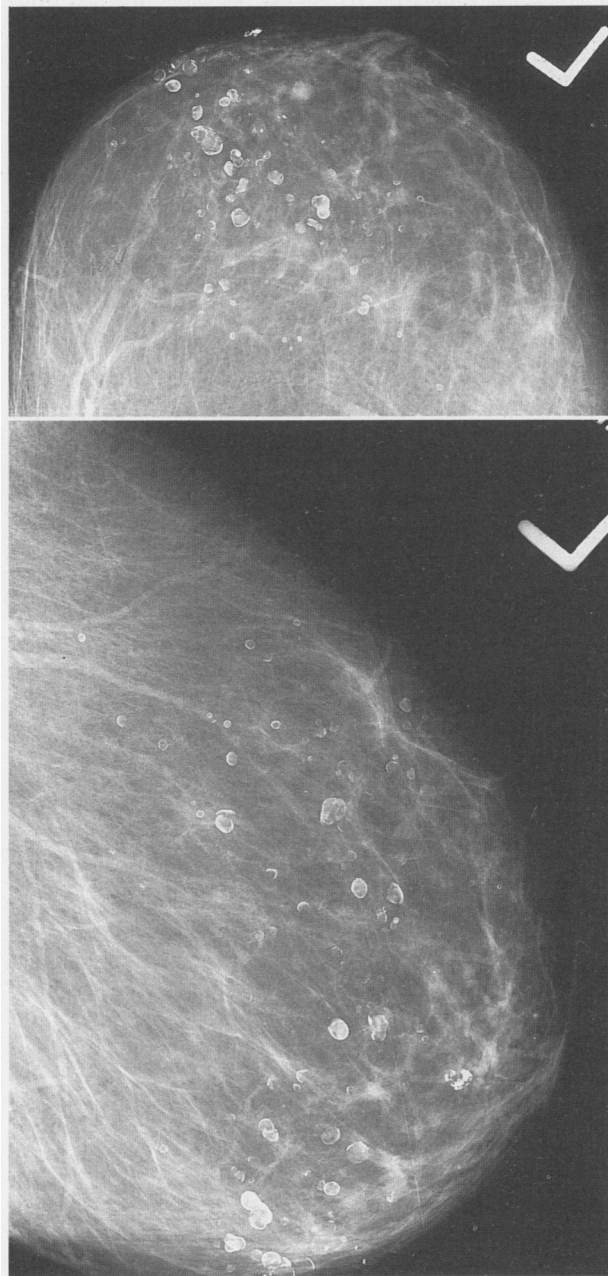
TO THE EDITOR: The mammographic and clinical findings resulting from noniatrogenic trauma to the breast can be mistaken for signs of malignancy, especially because trauma often is not considered as a cause for such findings. Furthermore, patients may not initially recall the traumatic event.

We report a case of trauma to the breast resulting from a motor vehicle accident, showing a unique, diagonal mammographic pattern of calcified oil cysts resulting from a steering wheel injury.

### Report of a Case

The patient, a 49-year-old woman, was seen for evaluation of a pea-sized mass felt in her left breast. A mam-

mogram done with a metallic skin marker over the mass showed multiple fat-density masses with eggshell-type calcification characteristic of fat necrosis, one of which corresponded to the palpable mass (Figure 1). The patient described a motor vehicle accident seven years before this visit in which she sustained direct trauma to her left breast from the steering wheel, resulting in extensive black-and-blue marks. The distribution of the calcified lipid cysts, which extended diagonally across the breast, was thought to correspond to the course of the steering wheel, suggesting fat necrosis from blunt trauma. The patient's x-ray



**Figure 1.**—Craniocaudal (top) and mediolateral (bottom) mammograms show eggshell-type calcifications in a diagonal distribution across the breast resulting from blunt trauma from a steering wheel during a motor vehicle accident.

films from three years before the examination showed no change. The reason why the palpable region of fat necrosis came to the patient's attention seven years after her initial injury could not be ascertained from her medical record.

### Discussion

The breast can be subject to direct trauma in a motor vehicle accident, with bruises and abrasions of the chest wall occurring in 16% of seat belt-restrained victims, as detailed in a large prospective surgical series.<sup>1</sup> The investigators reported that minor soft-tissue injuries sustained by restrained passengers tended to be restricted to a diagonal band over the chest corresponding to a seat-belt harness. The most common mammographic findings resulting from major breast trauma—usually surgical biopsy—are breast edema and skin thickening, architectural distortion, dystrophic calcification, mass, and changes of fat necrosis.<sup>2,3</sup> Fat necrosis may produce a hard mass that can be adherent to the skin or deeper structures.<sup>4</sup> Previous mammographic findings after seat-belt injury or motor vehicle accident have included the disruption of a silicone-gel breast implant, breast mass with or without skin thickening, dystrophic calcifications of fat necrosis, or a spiculated mass suggestive of breast cancer.<sup>5-7</sup> None, however, have described the diagonal mammographic pattern from the distribution of injury incurred during motor vehicle accidents. In our patient, the diagonal pattern was probably caused by blunt trauma from the steering wheel, resulting in eggshell-type calcifications suggestive of fat necrosis. We postulate that the diagonal distribution could also be produced by the harness-type restraining seat belt. In our practice we also have noted a hematoma restricted to the axillary tail from a seat-belt injury and three cases of fat necrosis or lipid cysts strictly localized to the inner breast after seat-belt or steering wheel injury.

Patients may not initially remember the traumatic event to the breast, and mammography may be the first radiographic study to suggest this history, particularly if it shows typical findings of fat necrosis. The region should be evaluated to ensure that the calcifications or mass have a typically benign appearance that would correlate with the type of injury incurred, perhaps with fine-detail mammographic views. Films should be taken with skin markers to document that palpable findings correspond to the characteristic benign fatty lobule or region of fat necrosis seen on mammography. Careful, short-term follow-up to document the stability of the clinical and radiographic findings may be substituted for biopsy when both the mammographic findings and temporal relationship of these findings are consistent with the clinical history for blunt injury to the breast after a motor vehicle accident and the suspicion for malignancy is remote.

Because wearing a restraining seat belt is now the law in many states, mammographic findings after motor vehicle accidents may not be uncommon. Recognizing the diagonal pattern described here may be helpful in distinguishing sequelae of blunt trauma. Other mammographic appearances of fat necrosis such as a spiculated mass (not

shown in our case) may mimic carcinoma, however, and only those findings pathognomonic of benign fat necrosis should be dismissed after mammographic workup.

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## Complications of Do-Not-Resuscitate Orders

TO THE EDITOR: The article by Olsen and colleagues in the May 1993 issue<sup>1</sup> was a thought-provoking addition to the bioethics literature. The authors, however, did not mention several other community initiatives besides those in Anchorage, Alaska, and Hennepin County, Minnesota, to allow home do-not-resuscitate status (DNR). In California, both Los Angeles and Orange counties have provided for DNR orders in the home. Orange County provides special DNR wristbands to home health agency patients, with consents signed by the patient or a surrogate and the physician. These are honored by paramedics and hospital emergency physicians. Los Angeles County requires a copy of a signed DNR order instead of a wristband.

Vertically integrated managed care organizations control many aspects of health care delivery. FHP Healthcare, a federally qualified health maintenance organization, has policies in its Long Beach/Orange County Staff Model Region that provide for hospital and skilled-nursing-facility social workers to counsel and obtain consent for postdischarge DNR orders. Our ambulance department, emergency departments, skilled nursing facilities, home health and hospice agencies, and ambulatory centers have policies to honor these orders. The purpose of this set of policies is to allow our organization to honor patients' wishes in all settings.

Implementing these policies is difficult. We have created special color-coded arm bands to identify DNR patients, but few patients will wear them. Without this iden-

tification, when cardiovascular collapse occurs, health care professionals who do not know the patients will resuscitate them. Checking data bases for DNR orders, finding orders for ambulatory patients, or calling designated agents is not possible for resuscitation teams. Families should be taught to anticipate the stages of death and call the home health or hospice nurse when a patient with a DNR order collapses, rather than use an emergency medical system. Furthermore, local regulations hamper our ability to comply with patient wishes.

The local emergency medical system will not honor our company-specific wristband. Because our facilities and patients cross county lines, at times we must use both counties' systems and paperwork for the same patient. Families of these patients often use the emergency medical systems when faced with the reality of imminent death. When no wristband is in place, patients are resuscitated and taken to the nearest paramedic receiving center, away from the physicians and nurses who may know these patients or have access to their records. Our local regulations consider patients who call for an ambulance after discharge from the hospital "prehospital." The discharging physician's DNR order is not valid in that case until the first home health visit. Therefore, our own ambulances are prohibited from honoring do-not-resuscitate orders for some recently discharged patients.

Verbal DNR orders are often proscribed, and few physicians make home visits. FHP Healthcare's home health department does include close contact with physicians and physician visits to a patient's home when necessary. Still, unlike hospital DNR orders, we cannot change home DNR orders daily. Delays caused by the logistics of obtaining a home DNR order result in unwanted resuscitation.

Despite these obstacles, we must continue to develop ways to implement such policies. The acceptance of terminal illness involves grieving. Once patients or their families have understood and accepted medical limitations and have chosen a course of limited intervention, we have a duty to honor that choice. We must remove bureaucratic and logistical impediments to fulfilling that duty.

Resuscitating patients with terminal illnesses who do not wish that intervention is futile and unwanted care. We currently face an economic and political environment that may lead to reduced medical benefits. Before we limit care that is effective, or that a patient wants, we should make every effort to eliminate care that is both unwanted and ineffective.

I also urge that "state governmental agencies . . . propose comprehensive DNR legislation for prehospital settings."<sup>1</sup>

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